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WATCHING THE WEATHER WITH UNCLE SAM

The seventh of a series of ten talks by Mr. Welby R. Stevens, assistant forecaster, United States Weather Bureau, delivered through Station WRC and 32 other stations associated with the National Broadcasting Company, Monday, January 20, 1930.

On last Thursday we told you about the wind circulation around **HIGHS** and **LOWS** and the weather conditions that generally attend them. But these areas of high and low pressure have other peculiarities and characteristics which a forecaster must always keep in mind.

The great majority of **LOWS** that originate in or pass over the United States move out to sea near Newfoundland. There is a tendency for a **LOW** to follow a certain path depending upon where it originates. While **LOWS** may develop almost anywhere, certain areas seem to be more favorable for their development than others. For example, many originate over Colorado, Texas, the Gulf of Mexico and the Southeastern States. A forecaster watches these regions very carefully for the first indications that a storm is brewing. Usually the key to the situation is a moderate fall in pressure during the last 12 hours. Oftentimes, however, the clue is a change in the wind direction and perhaps an increase in the velocity, or an increase in cloudiness.

The velocity with which the center of a **LOW** moves along its path varies from day to day and from season to season. The average velocity for the United States is about 600 miles per day. They move slowest in summer and fastest in winter. On the average, they move faster in the Northern States than in the Southern. They are most frequent and most intense in winter.

HIGHS do not often develop over the United States. They usually move into this country over the extreme northwest portion, either from the Pacific Ocean or from Canada, advance eastward and southward until they reach the Atlantic states and then either turn toward the northeast or move on toward Bermuda. Most of those which enter from Canada originate in the Mackenzie Basin or farther north over the Arctic Ocean. These are the ones that usually bring our cold waves. **HIGHS** move more rapidly, are of much greater extent, and are much more intense in winter than in summer.

Again we want to emphasize that these remarks apply only in a general way. If **ALL** **HIGHS** and **LOWS** acted as the majority do, forecasting would not be so difficult. The trouble is that so many are erratic not only as to direction and velocity of movement, but also as to the weather conditions that attend them. The forecaster must decide in every case from the evidence he has at hand in the way of observational data, whether the **HIGH** or **LOW** is going to behave in a normal or an erratic manner. Every weather chart presents a variety of new problems that the forecaster must solve. It is only from long experience and careful study that he is able to diagnose the situations that constantly arise, weigh the evidence in the balance and arrive at accurate conclusions. He must be able to take in many details at a glance and must have an accurate and retentive memory.

On next Thursday we shall tell you about some of the characteristics of tornadoes.

